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NATIONAL WEATHER SERVICE INSTRUCTION 10-311

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Operations and Services

Marine And Coastal Weather Services, NWSPD 10-3

OFFSHORE, NAVTEX, HIGH SEAS, AND MARINE FORECAST SERVICES

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SUMMARY OF REVISIONS: This directive supersedes NWSI 10-311, dated July 16, 2004. This directive includes the following changes:

1. Modification to the High Seas Forecast (HSF) product to eliminate the requirement for warning headlines for tropical depressions.

2. Corrections to date format in Offshore examples in Appendix A.

3. Corrections to periods in Offshore Format.

4. Guidelines on the inclusion of ashfall or volcanic activity in the offshore and high seas forecasts are included.

signed June 21, 2006

Dennis H. McCarthy Date
Director, Office of Climate,
Water, and Weather Services

OFFSHORE, NAVTEX, AND HIGH SEAS MARINE FORECAST SERVICES

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Appendix

1. Introduction. This procedural instruction provides product specifications for the main alphanumeric and graphical offshore, and high seas weather products issued by three National Weather Service (NWS) Weather Forecast Offices (WFOs), and the National Centers for Environmental Prediction (NCEP), including the Ocean Prediction Center (OPC), and the Tropical Analysis and Forecast Branch (TAFB) of the Tropical Prediction Center (TPC). The WFOs which prepare the text offshore forecast are: WFO Honolulu, HI (HFO), WFO Anchorage, AK (AFC), and WFO Juneau, AK (AJK).

2. Offshore Waters Forecast (product category OFF).

2.1 Mission Connection. The Offshore Waters Forecast (OFF) provides forecast and warning information to mariners who travel on the oceanic waters adjacent to the U.S. and its territorial coastal waters. The OFF, produced in both graphic and alphanumeric format, serve users who operate from the coastal waters out several hundred nautical miles from shore.

2.2 Issuance Guidelines.

2.2.1 Creation Software. WFOs and National Center offices should produce the OFF using software formatters requiring little or no post editing. They may use text editors to create the OFF where automated software formatters are not yet available. In the Alaska Region, the Interactive Forecast Preparation System (IFPS) Graphical Forecast Editor (GFE) application formatting tools will be used for generation of product content.

2.2.2 Issuance Criteria. The OFF will be issued at least twice a day with updates as necessary. NCEP, Alaska Region, or Pacific Region, as dictated by user requirements, may require scheduled updates.

2.2.3 Issuance Time. Offshore Waters Forecasts are routinely-scheduled products. Forecasters should make the OFF available to users by the scheduled issuance time, but no earlier than one (1) hour before this issuance time. In the communications header, list the issuance time in Coordinated Universal Time (UTC), but in the mass media header, list the valid time in local time. National Centers and WFOs should issue Offshore Waters Forecasts based on the following:

Responsible Office	Issuance Times (UTC)	
	Scheduled Issuance	Scheduled Issuance
OPC (Atlantic)	0230	
	0800	
	1430	
	2000	
OPC (Pacific)	0230	
	1630	
	2230	
	0430	
TPC/TAFB	0315	

	0915	
	1530	
	2130	
WFOs Anchorage, Juneau		
	1200 (DST*)	1300 (standard time)
	0000 (DST*)	0100 (standard time)
WFO Honolulu	0400	1600
	1000	2200

* DST means Daylight Savings Time

In all forecasts, include forecast periods as shown below. Use the day of the week to describe forecast periods beyond the current day. For example, in a forecast issued Sunday evening, include: TONIGHT, MON, MON NIGHT, etc.

The early morning forecasts will cover:

Today	(Issuance time to 6PM)	1st Period
Tonight	(6PM to 6AM)	2nd Period
Day 2	(6AM to 6PM)	3rd Period
Day 2 Night	(6PM to 6AM)	4th Period
Day 3	(6AM to 6AM)	5th Period
Day 4	(6AM to 6AM)	Day 4
Day 5	(6AM to 6AM)	Day 5

The late afternoon forecast will cover:

Tonight	(Issuance time to 6AM)	1st Period
Tomorrow	(6AM to 6PM)	2nd Period
Tomorrow Night	(6PM to 6AM)	3rd Period
Day 2	(6AM to 6PM)	4th Period
Day 2 Night	(6PM to 6AM)	5th Period
Day 3	(6AM to 6AM)	6th Period
Day 4	(6AM to 6AM)	Day 4
Day 5	(6AM to 6AM)	Day 5

2.2.4 Valid Time. Offshore Waters Forecasts are valid from the time of issuance until the expiration time.

2.2.5 Product Expiration Time. The OFF product expiration time is not more than 14 hours from the initial issuance.

2.3 Technical Description. Offshore Waters Forecasts will follow the format and content described in this section.

2.3.1 Mass News Disseminator Broadcast Line. None.

2.3.2 Mass News Disseminator Header. The Offshore Waters Forecast MND Header is "OFFSHORE WATERS FORECAST". A location may be added, on the same line. See figure 1.

2.3.3 Content. Follow the format for the OFF as shown in section 2.4; examples of the OFF can be found in Appendix A. Forecasters may subdivide each marine zone (e.g., NORTHERN HALF, SOUTHERN HALF; WATERS SOUTH OF 40N; etc.) to describe significant differences. If geographical reference points are used in the subdivision, forecasters should ensure they are well known.

Forecasters should include applicable National Marine Sanctuaries (NMS), as noted in NWSI 10-302, in the appropriate OFF. These National Marine Sanctuary names should be included in the specific zone(s) and/or the general area description.

Similarly, forecasters may combine zones for which they are responsible if conditions are expected to be homogeneous. However, do not combine a zone with only a portion of another.

The forecaster may combine forecast periods (beyond the first period) if, in the forecaster's opinion, the weather elements in each are consistent. Also, the forecaster may subdivide the first period of the forecast to account for rapid weather changes. The OFF includes marine-based zone UGC codes.

Above the synopsis, OFF products will include a statement that explains the seas forecast as the average of the highest 1/3 of the waves, and that individual waves may be more than twice a high.

2.3.4 Synopsis. The synopsis for the OFF should be a concise, understandable description of the significant surface weather features that may cause significant winds and seas over the forecast area during the forecast period. Areas in the tropics often have significant upper level features which are the dominant cause of the weather e.g. TUTTs (Tropical Upper Tropospheric Troughs) and upper level lows. The synopsis may mention these features.

Forecasters should concentrate on the first 48 hours. At a minimum the synopsis should identify major weather systems and the strength, trend, and movement of each. After 48 hours, less detail is needed; include a general description of systems impacting the area only if they are expected to generate gale force, storm force, or hurricane force winds. Such systems do not necessarily have to be in the forecast area.

For tropical cyclones expected to impact the forecast area, forecasters should include forecast positions out to 72 hours with a generalized position description at 96 and 120 hours.

2.3.5 Headlines. Use headlines to emphasize weather events likely to have a significant impact on mariners or marine operations. In each headline, indicate the severity of the event in the priority order given below.

The most significant headline generally should stand alone. However, forecasters may include more than one headline to indicate multiple hazards or worsening conditions. Do not include a headline that downgrades a current condition in later periods (e.g., a storm warning in effect improving to a gale warning). A warning is issued when wind conditions are expected to exceed

34 knots within a 24-hour period. Refer to NWSI 10-301 for appropriate definitions of gale, storm, and hurricane force wind warnings.

In the headline, forecasters should include a general statement of the weather posing the threat, the time period, and, if necessary, the specific area impacted.

Do not include headlines for severe local storm watches and warnings, tropical cyclone watches, and small craft advisories in the OFF. However, forecasters may use other headlines, such as WARNING EXPECTED WED or GALE FORCE WINDS EXPECTED WED, especially for stronger storms in later forecast periods.

a. Non-Tropical Storm Related Headlines. In the OFF, forecasters should use the following headlines, in the priority order given, if appropriate criteria are or are expected to be met.
   1. Hurricane Force Wind Warning
   2. Storm Warning
   3. Gale Warning
   4. Heavy Freezing Spray Warning
   5. Ashfall Advisory or Volcanic Activity

   Based on event significance, forecasters may include headlines for events expected to impact the forecast area such as freezing spray, restrictions lowering visibilities below 1/4 NM, or ashfall from volcanoes or forest fires.

b. Tropical Cyclone Related Headlines. Keep headlines of tropical cyclones expected to impact the forecast area consistent with those included in the appropriate tropical cyclone advisories.

c. Gale Warnings/Storm Warnings. NWS offices responsible for the OFF will issue warnings when wind criteria are forecast for the first two twelve (12) hour periods (for the first 24 hours), and may issue warnings for the third period when forecaster confidence is high. In addition, when forecaster confidence is high, marine offices may include a headline in the Offshore Waters Forecast such as "GALE FORCE(or GALE FORCE CONDITIONS or STORM FORCE or HURRICANE FORCE WINDS) EXPECTED xxxDAY" for the remaining periods of the forecast.

2.3.6 1-3 Day Forecast Periods. In the OFF product, include specific wind and sea states for all periods in the 1 through 3 Day forecasts. Forecasters should also include major precipitation events, ice accretion, ashfall, and low visibility conditions as conditions warrant.

2.3.7 4-5 Day Forecast Periods. Include the most significant wind and sea height information in the 4 through 5 Day forecast periods. However, forecasters may use trend forecasts in lieu of specific wind and sea heights. Forecasters may also note other major events such as ice accretion and low visibility.

When a tropical cyclone threatens to impact an OFF zone, forecasters should include an indication of the tropical cyclone, based on TPC, CPHC, and/or HPC guidance, for

the specific day(s) impacted. Because large positional and intensity errors are possible in these cases, do not use specific wind and sea values.

Example: .FRIDAY...EAST WIND INCREASING TO GALES AND SEAS BUILDING.
SAT…TROPICAL STORM CONDITIONS EXPECTED.
SUN…HURRICANE CONDITIONS AND BUILDING SEAS EXPECTED.

2.3.8 OFF - Forecast Parameters

a. Winds. Winds represent predominant conditions at 10 meters above the surface of the water. Forecasters should give directions to eight points of the compass and speeds rounded to the nearest 5 KT.

Forecast changes in wind direction should be for changes of 45 degrees or more, and forecast changes in wind speed should be for changes of 10 knots or more. Wind speed transition terms such as “INCREASING” and “DIMINISHING” and direction transition terms such as “BECOMING” and “SHIFTING” should be used to add clarity to the forecast trends. The terms "VEERING, BACKING, BECOMING, SHIFTING," or "RISING" may be used when appropriate, but not "DECREASING."

When there are significant differences expected between sustained winds and gusts, the OFF should contain either a specific wind gust speed or a more generic phrase to describe the gusty condition of the winds, e.g., “E WINDS TO 70 KT WITH GUSTS TO 120 KT.”; “WITH HIGHER GUSTS.” Gusts should not be forecast unless they are expected to be at least 15 knots greater than the sustained wind.

Note significant changes (i.e., at a minimum, those changes denoting a change in warning category) in the winds during the forecast period.

b. Seas. Give sea state as significant wave height or break it down into appropriate components (e.g., WIND WAVES 2 TO 4 FT, NORTHEAST SWELL TO 10 FT, SEAS 12 FT). Whenever a SWELL is specified, include the direction from which the swell is propagating, to 8 points of the compass.

Do not use descriptive terms, such as MODERATE or ROUGH.

Sea state forecasts should be included for marine areas or portions of marine areas not covered by ice. For other marine areas where coverage of 7/10 or more of sea ice is expected, forecasts of sea state are usually omitted; however, if the area has at least 10% contiguous open water, sea state forecasts may be given. In these cases, use the phrase "SEAS IN ICE FREE WATERS".

c. Significant Weather/Visibility. When it is expected, forecasters should include significant weather posing a hazard to navigation (i.e., widespread fog or other restriction lowering visibilities to 1/4 NM or less, or thunderstorms). Based on forecaster discretion, and/or expected impact to users, forecasters may include obstructions to visibility ranging between 1 ½ NM to 5 NM. Forecasters may use areal coverage terms like "patchy," "widespread," or "areas of" to describe fog or other significant weather. Forecasters may use precipitation probability terms "CHANCE", "OCCASIONAL", etc., as defined in NWSI 10-503, and may include specific visibility distances. However, do not include sky cover.

d. Icing. The forecaster should include freezing spray in the body of the forecast whenever ice accretion on exposed surfaces is likely. When freezing spray is forecast to meet warning thresholds, a headline should also be included (e.g., ...HEAVY FREEZING SPRAY WARNING...). An ice accretion rate of 2 CM/hour or greater is considered heavy freezing spray. See definitions in NWSI 10-301.

2.4 Format. The format of the OFF can be seen in Figure 1. This product is available in industry standard encoding and languages, and may include, but not limited to, American Standard Code for Information Interchange, Extensible Markup Language, Wireless Markup Language and Hypertext Markup Language (ASCII, EML, WML, and HTML).

(WMO ID) (ISSUANCE DATE TIME)
(AWIPS ID)

OFFSHORE WATERS FORECAST (PLUS OPTIONAL LOCATION)
NATIONAL WEATHER SERVICE (CITY)(STATE)
(VALID TIME) AM/PM (LOCAL TIME ZONE)(DAY)(DATE)

OFFSHORE WATERS FORECAST FOR (FORECAST AREA)

(STATEMENT EXPLAINING SEAS FORECAST)

(SYNOPSIS UGC CODE)-(EXPIRATION TIME)-
(VALID TIME) AM/PM (LOCAL TIME ZONE)(DAY)(DATE)

.SYNOPSIS FOR (BRIEF DESCRIPTION OF FORECAST AREA)...TEXT.

$$

(AREAL UGC[S])-(EXPIRATION TIME)-
(FORECAST AREAL DESCRIPTOR[S])
(VALID TIME) AM/PM (LOCAL TIME ZONE)(DAY)(DATE)

...HEADLINE (if needed)...

.PERIOD 1...
.PERIOD 2...
.PERIOD 3...
.PERIOD 4...
.PERIOD 5… (Optional Period for some issuances)…
.(DAY 3)…
.(DAY 4)...
.(DAY 5)...

$$

Figure 1. Offshore Waters Forecast (OFF) Format

2.4.1 OFF - Unscheduled Forecasts. As needed, append either "...UPDATED" or "...CORRECTED" to the product header whenever, respectively, an unscheduled OFF is issued or when an error in the OFF is corrected. Add a short description of the updated or corrected items just below the areal header to highlight the change.

2.5 Graphic Products. Appendix A lists existing offshore graphic products. Forecasters will ensure the graphics are consistent with compatible text products. Additionally, forecasters should ensure graphic products reaching the edges of an office's warning area are consistent with compatible products in neighboring warning areas.

2.6 Updates, Amendments and Corrections. OFFs will be updated when the on-duty forecast team believes the current forecast is not representative, or when significant format or content errors are detected. WFOs and National Centers will correct OFFs for significant format and grammatical errors. Amendment codes (Aaxx) and update/correction codes (CCx) will be followed using NWSI 10-1701 Section 4.1.

(WMO ID) (ISSUANCE DATE TIME)
(AWIPS ID)

OFFSHORE WATERS FORECAST**...UPDATED (or ...CORRECTED)**
NATIONAL WEATHER SERVICE (CITY)(STATE)
(VALID TIME) AM/PM (LOCAL TIME ZONE)(DAY)(DATE)

OFFSHORE WATERS FORECAST FOR (FORECAST AREA)

(STATEMENT EXPLAINING SEAS FORECAST)

(SYNOPSIS UGC CODE)-(EXPIRATION TIME)-
(VALID TIME) AM/PM (LOCAL TIME ZONE)(DAY)(DATE)

.SYNOPSIS FOR (TOTAL FORECAST AREA)...TEXT.

$$

(AREAL UGC[S])-(EXPIRATION TIME)-
(FORECAST AREAL DESCRIPTOR[S])
(VALID TIME) AM/PM (LOCAL TIME ZONE)(DAY)(DATE)

Figure 2. Unscheduled Offshore Waters Forecast (OFF) Format

3. Marine Weather Discussion (product category MIM).

3.1 Mission Connection. The Marine Weather Discussion (MIM) is a semi-technical product, analogous to the Area Forecast Discussion (AFD), primarily used as a means to explain the scientific rationale behind a forecast and summarize warnings in effect. The Marine Weather Discussion is used to convey forecast and warning information to Weather Forecast Offices (WFO's), federal agencies, weather sensitive officials, and the media.

3.2 Issuance Guidelines.

3.2.1 Creation Software. The MIM should be composed using text editors and/or available formatters.

3.2.2 Issuance Criteria. The MIM should be issued two to four times daily by the National Centers issuing the Offshore Waters Forecast; reference section 2.2.3. In lieu of a MIM, WFOs Honolulu (HFO) Anchorage (AFC) and Juneau (AJK) should include a discussion of their OFF in their Area Forecast Discussion (AFD).

3.2.3 Issuance Time. The MIM should be issued shortly before the scheduled Offshore Waters Forecast. Also, forecasters should issue a brief MIM to provide information of an impending OFF update.

3.2.4 Valid Time. MIMs are valid from time of release until the next complete update.

3.2.5 Product Expiration Time. MIMs do not contain a product expiration time.

3.3 Technical Description. The Marine Weather Discussion will follow the format and content described in this section.

3.3.1 Universal Geographic Code (UGC) Type. There is no UGC coding associated with the MIM product.

3.3.2 MND Header. The MND Header is "MARINE WEATHER DISCUSSION".

3.3.3 Content. The Marine Weather Discussion should describe synoptic and mesoscale features expected to affect areas in and adjacent to offshore waters in both the Atlantic and Pacific Oceans. This narrative describes weather, wind speeds, and seas focusing mainly on conditions through the next 48 hours. The MIM should emphasize timing and issuance of warnings; include future trends of wind and sea conditions, effects of currents such as the Gulf Stream in the Atlantic Ocean, and how the latest computer model guidance is handling features of significance to the mariner. The MIM may include the degree of confidence for any forecast element which would benefit coastal WFOs and other users' decision making.

3.4 Format. The MIM should be consistent with instructions for the AFD contained in NWSI 10-503. Examples of the MIM can be found in Appendix A. This product is available in industry standard encoding and languages, and may include, but not limited to, American Standard Code

for Information Interchange, Extensible Markup Language, Wireless Markup Language and HyperText Markup Language.

3.5 Updates, Amendments and Corrections. MIMs will be updated when the on-duty forecast team believes the current forecast is not representative, or when format or content errors are detected. WFOs and National Centers will correct MIMs for format and grammatical errors.

4. NAVTEX Forecasts.

4.1.1 Mission Connection.

The NAVTEX acronym is derived from NAVigational information TEleprinter EXchange. NAVTEX forecasts support the international SOLAS (Safety Of Life At Sea) convention of the International Maritime Organization (IMO). The NAVTEX forecast is a text forecast issued to accommodate broadcast restrictions of the U.S. Coast Guard NAVTEX transmitters. NAVTEX forecasts provide forecast and warning information to mariners who travel on the oceanic waters adjacent to the U.S. and its territorial coastal waters, and serves users who operate from the coastal waters to several hundred nautical miles from shore. The NAVTEX should include the highest winds and seas, and associated warnings for the respective broadcast area.

4.2 Issuance Guidelines.

4.2.1 Creation Software. WFOs and National Center offices should use text editors and/or available formatters to compose the NAVTEX forecast.

4.2.2 Issuance Criteria. The NAVTEX forecast represents a combination of the Coastal Waters Forecast (CWF) and the Offshore Waters Forecast (OFF). However, those offices issuing the CWF and the OFF will retain full responsibility for those products.

4.2.3 Issuance Time. The NAVTEX forecast will be issued immediately following the OFF transmittal.

4.2.4 Valid Time. NAVTEX Forecasts are valid from the time of issuance until the expiration time.

4.2.5 Product Expiration Time. The NAVTEX forecast expiration time is not more than 14 hours from the initial issuance.

4.3 Technical Description. NAVTEX forecasts will follow the format and content described in this section.

4.3.1 Mass News Disseminator Broadcast Line. None.

4.3.2 Mass News Disseminator Header. The NAVTEX marine products are broadcast via U.S. Coast Guard (USCG) NAVTEX stations. Refer to NWSI 10-302; Section 4, NAVTEX Forecast Areas of Responsibility, for detailed description of areas.

For the NAVTEX first MND line use:
NAVTEX MARINE FORECAST [+ optional area description]
The 2nd line should be one line only, in accordance with 10-1701 4.2.3:
Issuing Office
The 3rd line should be in accordance with 10-1701 4.2.4:
Time/Date
no extraneous lines, e.g. "INCLUDING THE STELLWAGEN BANK NATIONAL MARINE SANCTUARY."
A general area description should not be included immediately below the MND lines

4.3.3 Content. NAVTEX forecasts will follow the same content as the CWF and the OFF. Exceptions: Do not include Universal Generic Codes (UGCs).

In each NAVTEX forecast, match the broadcast areas of the appropriate USCG transmitters as listed in Section 4.3.2 above, and also in NWSI 10-302. Forecasters may combine forecast periods if weather features are similar.

No NAVTEX forecast will be longer than 89 lines including blank lines. Include the phrase: "...PLEASE REFER TO COASTAL WATERS FORECASTS (CWF) AVAILABLE THROUGH NOAA WEATHER RADIO AND OTHER MEANS FOR DETAILED COASTAL FORECASTS...' before the synopsis.

4.3.4 Synopsis. The synopsis should be consistent with synopses contained in the CWF and the OFF.

4.3.5 Headlines. List applicable headlines from both CWFs and OFFs, including those involving the extended portion of the forecast, in the NAVTEX forecast. Exception: Do not include headlines for small craft advisories or for severe local storm watches and warnings. Append the annotation 'WITHIN XX NM OF SHORE' for items restricted to coastal waters areas, where XX is the appropriate distance of the restricted item.

4.3.6 1-2 Day Forecast Periods. Include conditions representing values found throughout the entire forecast area.

4.3.7 3-5 Day Forecast Periods. Include winds and seas only. Local policy may include significant weather (i.e. thunderstorms, freezing spray) in days 3-5.

4.3.8 NAVTEX - Forecast Parameters. In the NAVTEX forecast, include the same forecast parameters as forecast in the OFF and the CWF.

4.4 Format. This product is available in industry standard encoding and languages, and may include, but not limited to, American Standard Code for Information Interchange (ASCII), Extensible Markup Language(EML), Wireless Markup Language (WML) and HyperText Markup Language (HTML). To ensure proper dissemination of the NAVTEX forecast, follow the following format:

Figure 3. NAVTEX Forecast Format

(WMO ID) (ISSUANCE DATE TIME)
(AWIPS ID)

NAVTEX MARINE FORECAST (PLUS OPTIONAL LOCATION)
NATIONAL WEATHER SERVICE (CITY)(STATE)
-example of alternative text for line 2:
NWS OCEAN PREDICTION CENTER WASHINGTON DC (See NWSI 10-1701)
(SCHEDULED ISSUANCE TIME) AM/PM (LOCAL TIME ZONE)(DAY)(DATE)

...PLEASE REFER TO COASTAL WATERS FORECASTS (CWF) AVAILABLE THROUGH NOAA WEATHER RADIO AND OTHER MEANS FOR DETAILED COASTAL FORECASTS...

.SYNOPSIS...(TEXT).

(FORECAST AREA[S])

...HEADLINE(S) (if necessary)...

PERIOD 1...
.PERIOD 2...
.PERIOD 3...
.PERIOD 4...
.PERIOD 5… (Optional Period for some issuances)…
.(DAY 3)…
.(DAY 4)...
.(DAY 5)...

$$

FORECASTER NAME (Optional)

4.4.1 NAVTEX - Unscheduled Forecasts. Update NAVTEX forecasts only in the rarest of circumstances when a major modification is required.

4.5 Updates, Amendments and Corrections. As NAVTEX is a single frequency system, each NAVTEX station and content provider must take measures to prevent mutual interference with other stations. To avoid such mutual interference, each NAVTEX station is assigned specific time slots. When a NAVTEX broadcast may exceed the assigned broadcast period, or broadcast a warning at an unscheduled time, the NAVTEX station must make scheduling arrangements with nearby stations to prevent potential mutual interference. Such rescheduling of broadcasts may result in an undesirable cascade effect, inhibiting the fundamental purpose of the NAVTEX system. Therefore, unscheduled broadcasts, and lengthy forecasts should be avoided. When changes are necessary, amendment codes (Aaxx) and update/correction codes (CCx) will be followed using NWSI 10-1701 Section 4.1.

5. High Seas Forecast (product category HSF).

5.1 Mission Connection. The High Seas Forecast (HSF) provides warning and forecast information to mariners who travel on the oceanic waters. The HSF is produced in both graphic and alphanumeric format.

5.2 Issuance Guidelines.

5.2.1 Creation Software. The National Centers for Environmental Predictions' Ocean Prediction Center (OPC), the Tropical Prediction Centers' (TPC) Tropical Analysis and Forecast Branch (TAFB), and WFO Honolulu (HFO) should produce the HSF using text editors where automated software formatters are not yet available.

5.2.2 Issuance Criteria. The HSF will be issued every six hours, including any marine warnings for gale, storm, and tropical cyclone conditions. Refer to NWSI 10-302, Section 5, High Seas Forecast Areas of Responsibility, for a description of the areas covered in these forecasts.

5.2.3 Issuance Time. High Seas Forecasts are routinely-scheduled products. OPC, TAFB and WFO HFO should issue HSFs based on the following:

Issuing Office	**Issuance Times(UTC)**				**Effective Until(UTC)**			
	Current Day				Day 2			
OPC/Atlantic	0430	1030	1630	2230	0000	0600	1200	1800
TPC/Atlantic	0430	1030	1630	2230	0000	0600	1200	1800
TPC/Pac.(N. of Equator)	0430	1030	1630	2230	0000	0600	1200	1800
OPC/Pacific	0430	1030	1630	2230	0000	0600	1200	1800
OPC/TPC/HFO Pacific	0545	1145	1745	2345	0000	0600	1200	1800
HFO/Pac.(N. of Equator)	0500	1100	1700	2300	0000	0600	1200	1800
TPC/Pac.(S. of Equator)	0515	1115	1715	2315	0000	0600	1200	1800
HFO/Pac.(S. of Equator)	0530	1130	1730	2330	0000	0600	1200	1800

5.2.4 Valid Time. High Seas Forecasts are valid from the time of issuance until the expiration time.

5.2.5 Product Expiration Time. HSFs are superseded by the next forecast issuance in 6 hours.

5.3 Technical Description. High Seas Forecasts will follow the format and content described in this section.

5.3.1 Mass News Disseminator Broadcast Line. None.

5.3.2 Mass News Disseminator Header. The High Seas Forecast MND Header is "HIGH SEAS FORECAST".

5.3.3 Content. To ensure understanding by users with diverse English language abilities, only use the abbreviations noted in NWSI 10-301. Also, include in the header the appropriate C Code (CCODE) and World Meteorological Organization (WMO) Meteorological Area (METAREA), as shown in NWSI 10-302 and 10-304. Follow the format for the HSF as shown in section 5.4; examples of the HSF can be found in Appendix A.

The first part of the HSF describes WARNINGS in effect for systems with sustained winds of 34 knots or greater. The expected trends, movement and 24 hour, 48 hour forecast positions and conditions are described. The forecast has less detailed information than the Offshore Waters Forecast. The second part of the HSF consists of the SYNOPSIS AND FORECAST section, which describes weather systems not meeting the warning criteria. The message describes the initial, 24 hour, and 48 hour forecast positions, along with associated conditions, if appropriate.

a. Securite/Pan Pan. The term SECURITE is an international communications code that indicates safety information follows. HSFs qualify as safety information, therefore SECURITE is routinely included in their heading. PAN PAN is an international communications code that indicates urgent information follows. Substitute the term PAN PAN instead of SECURITE whenever winds 64 knots or greater are in the forecast within 48 hours. The wind speed of 64 knots is the determining factor, not the phenomenon (i.e. a hurricane or non tropical storm) generating them.

b. Warnings. Include individual paragraphs listed by category of warning (hurricane, tropical storm, hurricane force wind, storm, or gale). In each paragraph, include a synopsis taken from, as applicable, the latest synoptic surface analysis or the latest tropical cyclone forecast/advisory from the TPC/National Hurricane Center or CPHC showing the following:

    1. For tropical and subtropical cyclones, provide the appropriate warning headline (i.e., HURRICANE WARNING...), the cyclone's strength (tropical storm, or hurricane), and its identifier (name). The HSF will not include headlines for tropical depressions. The headline will be the highest tropical cyclone category for the 48 hour forecast.

2. For all extratropical cyclones,
   a. the location of the center (in whole degrees of latitude and longitude);
   b. the central pressure (in millibars);
   c. for each quadrant, the areal coverage (in nautical miles from the center) of the various wind categories (storm, gale, etc.) and associated seas greater than 12 feet;
   d. the direction (eight points of the compass), speed of movement (knots), and trend in movement and/or intensity.

3. The central pressure (in millibars); but expected at 24 hours; include the tropical cyclone name.

4. The central pressure (in millibars); but expected at 48 hours; include the tropical cyclone name.

5. For non-tropical systems, initial and forecast locations of fronts and troughs associated with such warnings.

Also, forecasters should include a headline for a volcano (i.e. "VOLCANO" without the word "WARNING") if a volcanic eruption is known and may have a significant impact on marine operations. If issued, include in the paragraph the name of the volcano, its location, the area affected, and how operations are impacted (if known). State Xxxxx Volcano erupted and the most recent eruption time (we can have several "burps" per day).

Examples: AUGUSTINE VOLCANO…171 NM SOUTHWEST OF ANCHORAGE (or the location could be stated in lat/long in the HSF, such as…59N 153W) ERUPTED AT 0850AM AST TUESDAY.
or
SHISHALDIN VOLCANO ON UNIMAK ISLAND ERUPTED AT 0850AM AST (or 1750 UTC) TUESDAY.

Describe expected changes with reference to time in UTC and day (e.g., AT 0000 UTC APR 12 N OF 27N E OF 85W WIND W 30 TO 35 KT SEAS 10 TO 14 FT.) rather than specifying a forecast period (e.g., TONIGHT, FRI MORNING, etc.). If no warnings are expected, include 'NONE' in this section.

These paragraphs are hierarchical in order listing the most intense system first followed by other systems in descending order of intensity:

a. Hurricane(s),
b. Hurricane Force Wind,
c. Tropical Storm(s),
d. Storm(s),
e. Gale(s)
f. Volcano

If two or more storms have equal intensity categories, list the areas in descending order of importance or threat.

Do not include severe local storm watches and warnings, and do not include small craft advisories in HSFs.

5.3.4 Synopsis and Forecast. In this part of the HSF, provide a brief description of the most significant synoptic-scale features found in the forecast area for which warnings are not needed. The format is similar to that used in the warning areas. Use the time of the last previous surface analysis as the Synopsis Valid Time. Use 48 hours from that Synopsis Valid Time as the Forecast Valid Time.

5.3.5 HSF Forecast Parameters.

a. Winds. Winds represent sustained conditions at 10 meters above the surface of the water. Describe forecast wind speeds with either one representative value or, when significant differences are expected, with a small (i.e., 10 KT) range of values for the affected area. Forecasters may give these in terms of distances from the low pressure center, distances from the front or trough, or by latitude/longitude. Differences in the radial extent of forecast winds around a low pressure center are usually distinguished by quadrant or semicircle. Forecasters need not include wind direction.

   Forecasters should usually limit the description of winds to areas in which they are 20 KT or higher. They may use a statement such as WINDS LESS THAN 20 KT for conditions elsewhere in the forecast area. These thresholds may be adjusted to account for climatology.

b. Seas. Describe significant wave heights with either one representative value or, when a large variation is expected, with an appropriate range of values for the affected area. Forecasters may give these in terms of distances from the low pressure center, distances from the front or trough, or by latitude/longitude. Differences in the radial extent of forecast seas around a low pressure center are usually distinguished by quadrant or semicircle.

   Forecasters should usually limit the description of seas to areas in which they are 8 ft or higher. They may use a statement such as SEAS LESS THAN 8 FT for conditions elsewhere in the forecast area. These thresholds may be adjusted to account for climatology.

c. Significant Weather/Visibility. Include significant weather such as obstructions to visibility, thunderstorms, squalls, and ship icing.

For those HSFs covering areas south of 30N, forecasters may include thunderstorm information associated with the Intertropical Convergence Zone (ITCZ).

Forecasters should emphasize visibilities expected to be less than 1 NM in the HSF. They should mention obstructions to vision below 1NM if the condition is widespread enough to affect a

significant portion of the forecast area. They may include specific distances. However, do not include cloud conditions in the HSF.

d. Icing. When appropriate, include a headline for HEAVY FREEZING SPRAY in the HSF. An ice accretion rate of 2 CM/hour or greater is considered heavy freezing spray. See definitions in NWSI 10-301.

5.4 Format. Formatting of the HSF will follow NWSI 10-1701 except as explicitly stated in NWSI 10-1704. This product is available in industry standard encoding and languages, and may include, but is not limited to, American Standard Code for Information Interchange,

(WMO ID) (ISSUANCE DATE TIME)
(AWIPS ID)

[CCODES] {Refer to NWSI 10-304 for details on CCODES}
HIGH SEAS FORECAST **[FOR METAREA (XXX) {XXX = IV, XII, or XVI}]**
[**bold** terms used exclusively in the AT1, EPI, and EP3 Meteorological Products]
NATIONAL WEATHER SERVICE (CITY)(STATE)
[National Centers should refer to NWSI 10-1701 for further guidance on headers.]
(SCHEDULED ISSUANCE TIME)UTC (DATE)
SUPERCEDED BY NEXT ISSUANCE IN 6 HOURS

SECURITE (OR PAN PAN)

SYNOPSIS VALID
24 HOUR FORECAST VALID (VALID TIME)UTC (DATE)
48 HOUR FORECAST VALID (END VALID TIME)UTC (DATE)

WARNINGS

TEXT...(INCLUDE EXTENDED OUTLOOK DURING HURRICANE SEASON)

SYNOPSIS AND FORECAST

Figure 4. High Seas Forecast Format

Extensible Markup Language, Wireless Markup Language and HyperText Markup Language. The following format will be used for the HSF.

5.4.1 HSF - Unscheduled Forecasts. HSFs should be updated when a significant change in weather conditions, adversely impacting high seas mariners, is expected and not already forecast.

5.5 Graphic Products. Appendix A lists graphic high seas products. Ensure these products are consistent with information contained in neighboring offices' compatible text products. These products are available in industry standard encoding and languages, and may include, but not limited to, ".tif," ".gif," and ".jpeg."

5.6 Updates, Amendments and Corrections. HSFs will be updated or corrected when the forecaster believes the current forecast is not representative, or when, in the forecaster's judgment,significant format or content errors are detected. If necessary, append either "...UPDATED" or "...CORRECTED" to the product header when disseminating a correction or amendment. Amendment codes (Aaxx) and update/correction codes (CCx) will be followed using NWSI 10-1701 Section 4.1.

APPENDIX A - Examples of NWS Offshore, NAVTEX, and High Seas Forecasts

Table of Contents: Page

1. Graphics Products. The following are official NWS graphic products:

ISSUING OFFICE	AREA	TYPE OF PRODUCT	VALID TIME
Ocean Prediction Center (OPC)	ATL	Preliminary Surface Analysis Surface Analysis Sea State Surface Analysis Wind/Wave Analysis 500 mb Analysis	UTC 00
		24 Hour Wind/Wave Forecast 24 Hour Surface Forecast 24 Hour 500 mb Forecast	
		36 Hour 500 mb Forecast	
		48 Hour Wind/Wave Forecast 48 Hr. Wv. Per., with Ice accretion (seasonal) 48 Hour Surface Forecast 48 Hour 500 mb Forecast	
			03
		Wind/Wave Analysis	
			06
		Preliminary Surface Analysis Surface Analysis Wind/Wave Analysis	
			09
		Wind/Wave Analysis	
OPC (cont)	ATL (cont.)		
			12
		Preliminary Surface Analysis Surface Analysis Sea State Analysis Wind/Wave Analysis 500 mb Analysis	
		24 Hour Wind/Wave Forecast 24 Hour Surface Forecast 24 Hour 500 mb Forecast	
		36 Hour 500 mb Forecast	
		48 Hour Wind/Wave Forecast	

		48 Hour Wave Period	
		48 Hour Surface Forecast	
		48 Hour 500 mb Forecast	
		96 Hour Surface Forecast	
		96 Hour 500 mb Forecast	
		96 Hour Wind/Wave Forecast	
		96 Hr. Wv. Per. with Ice accretion (seasonal)	
			15
		Wind/Wave Analysis	
			18
		Preliminary Surface Analysis	
		Surface Analysis	
		Wind/Wave Analysis	
			21
		Wind/Wave Analysis	
	PAC		00
		Surface Analysis	
		Wind/wave Analysis	
		500 mb Analysis	
		Sea State Analysis	
		24 Hour Wind/Wave Forecast	
		24 Hour Surface Forecast	
		48 Hour Wind/Wave Forecast	
		48 Hour Wave Period Forecast	
		48 Hour Surface Forecast	
OPC (cont.)	PAC (cont.)	48 Hour 500 mb Forecast	
		SST Chart (40N-53N, East of 136W)	00 (cont)
		SST Chart (23N-42N, East of 136W)	
			03
		Wind/Wave Analysis	
			06
		Surface Analysis	
		Wind/Wave Analysis	
			09
		Wind/Wave Analysis	
			12
		Surface Analysis	
		Wind/Wave Analysis	
		500 mb Analysis	
		24 Hour Wind/Wave Forecast	

		24 Hour Surface Forecast	
		48 Hour Wind/Wave Forecast	
		48 Hour Wave Period	
		48 Hour Surface Forecast	
		48 Hour 500 mb Forecast	
		96 Hour Surface Forecast	
		96 Hour 500 mb Forecast	
		96 Hour Wind/Wave Forecast	
		96 Hour Wave Period Forecast	
			15
		Wind/Wave Analysis	
			18
		Surface Analysis	
		Wind/Wave Analysis	
Tropical Prediction Center (TPC)	ATL		00
		Tropical Surface Analysis	
		00 Hr Sea State Analysis	
		24 Hour Surface Forecast	
		24 Hour Wind/Wave Forecast	
		48 Hour Surface Forecast	
		72 Hour Surface Forecast	
		48 Hour Wind/Wave Forecast	
		72 Hour Wind/Wave Forecast	
		48 Hour Peak Wave Period/Swell Direction	
		72 Hour Peak Wave Period/Swell Direction	
		High Wind and Associated Seas**	
			04
		Tropical Cyclone Danger Area*	
			06
		Tropical Surface Analysis	
		24 Hour Wind/Wave Forecast	
		High Wind and Associated Seas**	
			10
		Tropical Cyclone Danger Area*	
			12
		Tropical Surface Analysis	
		00 Hr Sea State Analysis	
		24 Hour Surface Forecast	
TPC (cont.)	ATL (cont.)	24 Hour Wind/Wave Forecast	
		48 Hour Surface Forecast	
		48 Hour Wind/Wave Forecast	
		48 Hour Wave Period/Swell Direction	
		72 Hour Surface Forecast	
		72 Hour Wind/Wave Forecast	

		High Wind and Associated Seas**	
			16
		Tropical Cyclone Danger Area*	
			18
		Tropical Surface Analysis	
		24 Hour Wind/Wave Forecast	
		High Wind and Associated Seas**	
			22
		Tropical Cyclone Danger Area*	
	PAC		00
		Tropical Surface Analysis	
		00 Hour Sea State Analysis	
		24 Hour Wind/Wave Forecast	
		48 Hour Wind/Wave Forecast	
		48 Hour Peak Wave Period/Swell Direction	
		72 Hour Wind/Wave Forecast	
		72 Hour Peak Wave Period/Swell Direction	
		High Wind and Associated Seas**	
		24 Hour Surface Forecast	
		48 Hour Surface Forecast	
		72 Hour Surface Forecast	
			04
		Tropical Cyclone Danger Area*	
			06
		Tropical 24 Hour Wind/Wave Forecast	
TPC (cont)	PAC (cont)	Tropical Surface Analysis	
		High Wind and Associated Seas**	
		Tropical Cyclone Danger Area*	
		Tropical Surface Analysis	10
		00 Sea State Analysis	
		24 Hour Wind/Wave Forecast	12
		48 Hour Peak Wave Period/Swell Direction	
		48 Hour Wind/Wave Forecast	
		72 Hour Wind/Wave Forecast	
		High Wind and Associated Seas**	
		24 Hour Surface Forecast	
		48 Hour Surface Forecast	
		72 Hour Surface Forecast	
		Tropical Cyclone Danger Area*	
			16
		Tropical Surface Analysis	
		High Wind and Associated Seas**	
		Tropical 24 Hour Wind/Wave Forecast	18

		Tropical Cyclone Danger Area*	
Weather Forecast Office (WFO) ANCHORAGE (ANC)	PAC	Sea Surface Temp. Analysis 120 Hour Sea Ice Forecast	22
		Sea State Analysis	00
		Surface Analysis Surface Analysis Sea Ice Analysis Surface Analysis	
WFO HONOLULU (HFO)			00
		Pacific Streamline Analysis North Pacific Surface Pressure Analysis	
		24 Hour Wind/Wave Forecast 48 Hour Wind/Wave Forecast 72 Hour Wind/Wave Forecast	
		24 Hour Surface Forecast 48 Hour Surface Forecast 72 Hour Surface Forecast	
			03
		Tropical Cyclone Danger Area	
			06
		Pacific Streamline Analysis North Pacific Surface Pressure Analysis	
			0721
		Pacific Ocean Sea Surface Temps *** (Latest analysis – updated twice weekly)til June 20, 2006, then transmitted 1128Z	
			09
		Tropical Cyclone Danger Area*	
			1128
		After June 20, 2006 ***	
			12
		Pacific Streamline Analysis North Pacific Surface Pressure Analysis 24 Hour Wind/Wave Forecast 48 Hour Wind/Wave Forecast	

72 Hour Wind/Wave Forecast
24 Hour Surface Forecast
48 Hour Surface Forecast
72 Hour Surface Forecast
15
Significant Cloud Features
Tropical Cyclone Danger Area*
18
Pacific Streamline Analysis
North Pacific Surface Pressure Analysis
48 Hour Surface Forecast
1918
Pacific Ocean Sea Surface Temps ***
(Latest analysis – updated twice weekly) til
June 20, 2006, then transmitted 2328Z
21
Tropical Cyclone Danger Area
2328
After June 20, 2006 ***

* Tropical Cyclone Danger Area chart is prepared from May 15 to November 30.
** High Wind and Associated Seas chart is prepared from December 1 to May 14.
*** Effective June 20, 2006: 1128/2328 Pacific Ocean Sea Surface Temps (Latest analysis – updated twice wkly)

2. Offshore Waters Forecasts:

FZAK61 PAFC 071145
OFFAER

OFFSHORE WATERS FORECAST FOR GULF OF ALASKA WEST OF 144 WEST
NATIONAL WEATHER SERVICE ANCHORAGE ALASKA
400 AM ADT FRI MAY 7 2004

WIND FORECASTS REFLECT THE PREDOMINANT SPEED AND DIRECTION EXPECTED. SEA FORECASTS REPRESENT AN AVERAGE OF THE HIGHEST ONE-THIRD OF THE COMBINED WIND WAVE AND SWELL HEIGHT. INDIVIDUAL WAVES MAY BE TWICE AS HIGH.

PKZ399-080200-
400 AM ADT FRI MAY 7 2004

.SYNOPSIS FOR THE WESTERN GULF OF ALASKA...HIGH PRESSURE WILL BUILD OVER THE GULF OF ALASKA THROUGH SUNDAY.

$$

PKZ350-080200-
400 AM ADT FRI MAY 7 2004

GULF OF ALASKA OFFSHORE...NORTH OF 55 DEGREES
NORTH AND WEST OF 144 DEGREES
WEST...OUTSIDE OF COASTAL WATERS.

FORECAST.
NORTH OF 57N.-

.TODAY...VARIABLE WIND 10 KT. SEAS 4 FT.
.TONIGHT...VARIABLE WIND 10 KT. SEAS 4 FT.
.SAT...W WIND 15 KT. SEAS 6 FT.
.SAT NIGHT...W WIND 25 KT. SEAS 7 FT.
.SUN...W WIND 30 KT. SEAS 10 FT.
.MON...W WIND 25 KT. SEAS 11 FT.
.TUE...SW WIND 20 KT. SEAS 5 FT.

SOUTH OF 57N.-

.TODAY...W WIND 15 KT. SEAS 5 FT.
.TONIGHT...W WIND 15 KT. SEAS 5 FT.
.SAT...W WIND 20 KT. SEAS 5 FT.
.SAT NIGHT...W WIND 20 KT. SEAS 6 FT.
.SUN...W WIND 25 KT. SEAS 8 FT.
.MON...W WIND 25 KT. SEAS 10 FT.
.TUE...SW WIND 25 KT. SEAS 6 FT.

$$

FZNT21 KWBC 091950
OFFNT1

OFFSHORE WATERS FORECAST
NWS OCEAN PREDICTION CENTER WASHINGTON DC
300 PM EST THU FEB 9 2006

NEW ENGLAND CONTINENTAL SHELF AND SLOPE WATERS FROM 25 NM
OFFSHORE TO THE HAGUE LINE...EXCEPT TO 1000 FMS S OF NEW ENGLAND

SEAS GIVEN IN SIGNIFICANT WAVE HEIGHT WHICH IS THE AVERAGE HEIGHT OF
THE HIGHEST 1/3 OF THE WAVES. INDIVIDUAL WAVES MAY BE MORE THAN
TWICE THE SIGNIFICANT WAVE HEIGHT.

ANZ080-100230-
300 PM EST THU FEB 9 2006

.SYNOPSIS...FOR NEW ENGLAND WATERS…WEAK LOW PRES WILL PASS JUST N OF THE AREA...WHILE AN ASSOCIATED COLD FRONT MOVES OFFSHORE TONIGHT. THE FRONT WILL SHIFT SE OF THE WATERS FRI. A HIGH PRES RIDGE WILL MOVE OFFSHORE FRI NIGHT AND SHIFT NE OF THE AREA LATE SAT. DEVELOPING LOW PRES WILL MOVE OFF THE MID ATLC COAST LATE SAT...INTENSIFY AND TRACK
NE ACROSS THE WATERS SAT NIGHT AND SUN. THE STRONG LOW WILL APPROACH NOVA SCOTIA LATE SUN. A WEAK COLD FRONT WILL RAPIDLY CROSS THE AREA MON BEFORE A HIGH PRES RIDGE MOVES E ACROSS THE WATERS TUE.
$$

ANZ081-100230-
GULF OF MAINE TO THE HAGUE LINE
300 PM EST THU FEB 9 2006

...GALE FORCE WINDS EXPECTED SAT NIGHT...
...STORM FORCE WINDS EXPECTED SUN...

.TONIGHT...W TO NW WINDS 10 TO 15 KT INCREASING TO 20 TO 30 KT AFTER MIDNIGHT. SEAS 1 TO 3 FT EARLY BUILDING TO 5 TO 9 FT... HIGHEST SE. SCATTERED SNOW SHOWERS DEVELOPING.
.FRI...W TO NW WINDS 20 TO 30 KT...DIMINISHING TO 15 TO 20 KT LATE. SEAS 6 TO 10 FT...HIGHEST SE...EXCEPT SUBSIDING TO 3 TO 6 FT OVER NW PORTION LATE. SCATTERED SNOW SHOWERS ENDING.
.FRI NIGHT...WINDS BECOMING N 10 TO 15 KT. SEAS SUBSIDING TO 2 TO 5 FT...HIGHEST SE.
.SAT...NE WINDS 10 KT OR LESS EARLY...INCREASING TO 20 TO 30 KT LATE. SEAS 2 TO 4 FT BUILDING TO 4 TO 7 FT LATE. HIGHEST WINDS AND SEAS S. SCATTERED SNOW SHOWERS DEVELOPING.
.SAT NIGHT...NE WINDS 25 TO 35 KT INCREASING TO 35 TO 45 KT LATE. SEAS BUILDING TO 9 TO 16 FT LATE...HIGHEST S.
.SUN...NE WINDS 35 TO 50 KT...BECOMING NW...THEN DIMINISHING TO 25 TO 35 KT LATE. SEAS BUILDING TO 12 TO 18 FT...BECOMING HIGHEST SE.
.MON...NW WINDS 15 TO 25 KT EARLY...DIMINISHING TO W 10 TO 15 KT. SEAS SUBSIDING TO 4 TO 7 FT...HIGHEST SE.
.TUE...NW WINDS 10 TO 15 KT BECOMING W. SEAS SUBSIDING TO 2 TO 4 FT.
$$

ANZ082-100230-
GEORGES BANK...FROM THE NORTHEAST CHANNEL TO THE GREAT SOUTH

CHANNEL INCLUDING WATERS EAST OF CAPE COD...TO THE HAGUE LINE
300 PM EST THU FEB 9 2006

...GALE FORCE WINDS EXPECTED SAT NIGHT...
...STORM FORCE WINDS EXPECTED SUN...

.TONIGHT...NW WINDS 15 TO 20 KT INCREASING TO 20 TO 30 KT LATE.
SEAS 3 TO 5 FT BUILDING TO 6 TO 8 FT LATE.
.FRI...NW WINDS 25 TO 30 KT EARLY...THEN DIMINISHING TO 15 TO 25
KT LATE. SEAS BUILDING TO 7 TO 12 FT...HIGHEST E. ISOLATED SNOW
SHOWERS.
.FRI NIGHT...WINDS DIMINISHING TO VARIABLE 10 KT OR LESS. SEAS
SUBSIDING TO 4 TO 7 FT LATE...HIGHEST SE.
.SAT...WINDS BECOMING E 15 TO 20 KT...THEN INCREASING TO 20 TO
30 KT LATE. SEAS BUILDING TO 6 TO 9 FT LATE.
.SAT NIGHT...E WINDS 25 TO 35 KT INCREASING TO 35 TO 45 KT LATE.
SEAS BUILDING TO 7 TO 12 FT.
.SUN...SW WINDS 30 TO 40 KT INCREASING TO 40 TO 55 KT...THEN
BECOMING NW AND DIMINISHING TO 20 TO 30 KT LATE. SEAS BUILDING TO
17 TO 25 FT...HIGHEST SE.
.MON...W WINDS 20 TO 25 KT EARLY...BECOMING 15 TO 20 KT. SEAS
SUBSIDING TO 6 TO 10 FT...HIGHEST SE.
.TUE...NW WINDS 10 TO 15 KT BECOMING W. SEAS SUBSIDING TO 4 TO 6
FT.
$$

ANZ083-100230-
SOUTH OF NEW ENGLAND...FROM THE GREAT SOUTH CHANNEL TO HUDSON
CANYON INCLUDING THE WATERS SOUTH OF MARTHA VINEYARD AND
NANTUCKET ISLAND...OUT TO 1000 FMS
300 PM EST THU FEB 9 2006

...GALE FORCE WINDS EXPECTED SAT NIGHT...
...STORM FORCE WINDS EXPECTED SUN...

.TONIGHT...W TO NW WINDS 15 TO 20 KT EARLY INCREASING TO 20 TO
25 KT AFTER MIDNIGHT. SEAS 3 TO 6 FT BUILDING TO 5 TO 8 FT
LATE... HIGHEST SE.
.FRI...NW WINDS 20 TO 25 KT EARLY...BECOMING W 15 TO 20 KT LATE.
SEAS 5 TO 10 FT SUBSIDING TO 3 TO 8 FT...HIGHEST FAR SE.
.FRI NIGHT...WINDS DIMINISHING TO VARIABLE 10 KT OR LESS. SEAS
SUBSIDING TO 2 TO 5 FT...HIGHEST FAR SE.
.SAT...WINDS BECOMING E TO NE AND INCREASING TO 15 TO 25 KT.
SEAS BUILDING TO 5 TO 8 FT LATE.
.SAT NIGHT...E TO NE WINDS 30 TO 40 KT BECOMING SW AND
INCREASING TO 35 TO 45 KT. SEAS BUILDING TO 8 TO 14 FT.

.SUN...SW WINDS 35 TO 50 KT EARLY...BECOMING NW...THEN
DIMINSHING TO 20 TO 30 KT LATE. SEAS 9 TO 17 FT BUILDING TO 12
TO 22 FT... HIGHEST E.
.MON...NW WINDS 15 TO 25 KT BECOMING W 15 TO 20 KT. SEAS
SUBSIDING TO 4 TO 9 FT...HIGHEST E.
.TUE...NW WINDS DIMINISHING TO 10 TO 15 KT. SEAS SUBSIDING TO 2
TO 5 FT.
$$

.FORECASTER CLARK. OCEAN FORECAST BRANCH.

3. Marine Weather Discussion:

AGNT40 KWNM 091830
MIMATN

MARINE WEATHER DISCUSSION
NWS OCEAN PREDICTION CENTER WASHINGTON DC
130 PM EST THU 9 FEB 2006

.FORECAST DISCUSSION: MAJOR FEATURES/WINDS/SEAS/SIGNIFICANT
.WEATHER FOR NORTH ATLANTIC OCEAN W OF 50W FROM 30N TO 50N.

12Z GFS MAY BE TOO SHARP WITH S/W TROF EXITING THE SE COAST THIS
AFTERNOON...CAUSING ENHANCED NW FLOW OVR CAPE FEAR TO 31N WTRS
EARLY TONIGHT. WILL CONTINUE WITH 30 KT MAX FCST OVR E PARTS OF
TWO SRN NT2 ZONES. THESE 25 TO 30 KT WINDS WILL BE LIMITED TO E
PARTS OFFSHORES AND WITH LESS EFFECT FOR CSTL ZONES. OF NOTE...
THIS S/W AMPLIFIES SIGNIFICANTLY AS IT MOVES NE OF WTRS
PRODUCING HURCN FORCE CYCLONE JUST W OF 50W.

WEEKEND CSTL LOW...THE MAJOR PLAYER FOR THIS FCST PERIOD CONTS
TO BE THE STRONG CLOSED UPR LOW FCST TO SWING INTO THE ERN CONUS
LATE SAT AND THEN LIFT NE ACRS NEW ENGLD SUN WHICH SUPPORTS THE
DVLPMT OF A SFC LOW MOVG OFSHR. 12Z GUIDANCE AVAILABLE...
INCLUDING GFS/NAM/UKMET...HAVE ALL NUDGED SFC LOW TRACK WWRD IN
COMPARISON TO THEIR RESPECTIVE PREV RUNS. THE 12Z CANADIAN AND
THE 12Z NOGAPS REMAIN MUCH FURHTER OFFSHORE WITH LOW...AND ALSO
MUCH WEAKER THAN GFS...AND FOR NOW WILL DISCOUNT THEM. WHEN SFC
LOW TRACKS OF 06Z ENSEMBLE MEMBERS ARE PLOTTED...12Z OPERATIONAL
GFS LIES ON LEFT SIDE OF SPREAD...WHICH WOULD BE EXPECTED GIVEN
WWRD NUDGE FROM 06Z TO 12Z OP RUNS. 12Z GFS AND 12Z NAM CONTINUE
TO BE MOST PROGRESSIVE SOLNS...YET THE 12Z UKMET IS INITIALLY
SLOWER THAN GFS/NAM...BUT BY 72HRS IS ROUGHLY 100 NM W OF GFS

72HR PSN. AM FAVORING A 12Z GFS SOLN GIVEN RELATIVE CONSISTENCY PAST FEW RUNS...AND NOW WITH NAM/UKMET SUPPORT. WILL GAIN MORE CONFIDENCE IN FCST IF 12Z ECMWF ALSO SHIFTS W IN LINE WITH 12Z GFS.

WHAT DOES THIS MEAN FOR FCST...WILL BE FAVORING THE 12Z GFS SOLN WHICH IS JUST E OF LATEST NAM/UKMET. WITH THIS AFTERNOONS FCST PACKAGE...WILL BRING GALES/STORM WINDS UP SOONER THAT LAST FCST GIVEN 12Z UKMET TREND TWRD GFS/NAM TIMING. SO WILL BRING WINDS TO STORM FORCE FOR WTRS N OF BALT CYN EARLY SUN. WILL ALSO INCREASE W TO SW WINDS OVR SE GEORGES BANK AND E HUDSON TO BALT CYN WTRS TO 55 OR 60 KT MAX SUN AS SFC LOW EXITS TO NE. 12Z NAM WINDS ALSO IN EXCESS OF 50 KT AS IT MOVES LOW TWRD NOVA SCOTIA. STILL LOW CONFIDENCE IN EXACT DETAILS...MEANING EXACT TIMING OF WIND SHIFTS ETC...BUT AM GAINING CONFIDENCE THAT STORM FORCE WINDS WILL IMPACT ABOVE WTRS LATE SAT NIGHT/SUN PERIOD. MUST WATCH SUBTLE MODEL TRNDS OVR NEXT 24 HRS...AS HURCN FORCE WINDS ARE NOT TOTALLY OUT OF QUESTION FOR NEW ENGL WTRS. FROM MEMORY...HURCN FORCE SYSTEM WHICH OCCURRED OFFSHORE CAPE COD DEC 9/10 2005 HAD BEEN ANALYZED IN THE LOWER 980'S...WHICH IS CONSISTENT WITH GFS/NAM FCST CNTRL PRES FOR THIS WEEKENDS SYSTEM. HOWEVER... SYNOPTIC PATTERNS WERE QUITE DIFFERENT.

AT END OF FCST PERIOD...PREFERRING THE 12Z GFS TRND WHICH IS NO LONGER AGRESSIVELY AMPLIFYING MON/TUE S/W AND NOT BRINGING GALES BACK TO N MID ATLC WTRS.

WITH PREFERENCE FOR 12Z GFS...WILL BE FOLLOWING 12Z WNA WW3 CLOSELY.

WARNINGS...PRELIMINARY. ANY CHANGES WILL BE COORDINATED THROUGH AWIPS...12 PLANET CHAT OR BY TELEPHONE.

.NT1 NEW ENGLAND WATERS...
.GULF OF MAINE...GALE SAT. STORM SUN.
.GEORGES BANK...GALE SAT. STORM SUN.
.S OF NEW ENGLAND...GALE SAT. STORM SUN.

.NT2 MID ATLC WATERS...
.HUDSON TO BALT CNYN...GALE SAT. STORM EXPCTD SUN.
.BALT CNYN TO HAT CNYN...GALE SAT AND SUN.
.HATTERAS CNYN TO CAPE FEAR...GALE SAT INTO SUN.
.CAPE FEAR TO 31N...GALE SAT INTO SUN.

.FORECASTER CLARK. OCEAN FORECAST BRANCH.

4. NAVTEX Forecasts:

FZNT25 KNHC 091548

OFFN04
NAVTEX MARINE FORECAST FOR THE SW NORTH ATLANTIC
NWS TPC/NATIONAL HURRICANE CENTER MIAMI FL
1030 AM EST THU FEB 09 2006

...PLEASE REFER TO THE COASTAL WATERS FORECAST AVAILABLE THROUGH NOAA WEATHER RADIO AND OTHER MEANS FOR A MORE DETAILED FORECAST WITHIN 60 NAUTICAL MILES OF THE COASTLINE...

SYNOPSIS FOR THE SW N ATLC INCLUDING THE BAHAMAS
.SYNOPSIS...COLD FRONT FROM 31N66W TO THE SE BAHAMAS WILL MOVE E OF 65W LATE FRI. WINDS WILL INCREASE N OF 26N W OF 70W SAT IN ADVANCE OF A STRONG COLD FRONT. THE COLD FRONT WILL MOVE TO 31N69W TO CENTRAL BAHAMAS EARLY SUN AND TO 25N65W TO WINDWARD PASSAGE LATE MON.

SW N ATLC S OF 31N W OF 65W INCLUDING BAHAMAS
.THIS AFTERNOON AND TONIGHT...N OF 27N NW WINDS 15 TO 20 KT...INCREASING 20 TO 25 KT TONIGHT. SEAS 5 TO 7 FT BUILDING 7 TO 9 FT. S OF 27N W OF FRONT NW WINDS 15 TO 20 KT. SEAS 5 TO 7 FT. E OF FRONT S WINDS 10 TO 15 KT BECOMING SW. SEAS 4 TO 6 FT. SCATTERED SHOWERS NEAR FRONT.
.FRI AND FRI NIGHT...N OF 25N NE TO E WINDS 15 TO 20 FT THEN DIMINISHING E TO SE 10 TO 15 KT FRI NIGHT. SEAS 5 TO 7 FT IN NW SWELL. S OF 25N E OF 73W NE WINDS 15 TO 20 KT. SEAS 5 TO 7 FT. S OF 25N W OF 73W E WINDS 10 TO 15 KT BECOMING SE FRI NIGHT. SEAS 4 TO 6 FT IN NE SWELL.
.SAT...N OF 27N SW WINDS 15 TO 20 KT INCREASING TO 25 TO 30 KT AND GUSTY. WIND SHIFT TO NW W OF FRONT LATE. SEAS 6 TO 8 FT BUILD 9 TO 14 FT LATE. S OF 27N SE TO S WINDS 15 TO 20 KT. SEAS 4 TO 6 FT E OF BAHAMAS AND 3 TO 5 FT W OF BAHAMAS. SCATTERED SHOWERS AND TSTMS DEVELOPING W OF 75W.
.SUN...W OF COLD FRONT NW WINDS 25 TO 30 KT. SEAS 10 TO 15 FT N OF 27N AND 6 TO 10 FT S OF 27N. N OF 27N E OF FRONT SW WINDS 20 TO 30 KT. SEAS 8 TO 11 FT. S OF 27N E OF FRONT SE TO S WINDS 15 TO 20 KT. SEAS 5 TO 8 FT. SCATTERED SHOWERS AND TSTMS WITH FRONT. .MON...WEAKENING FRONT 28N65W 20N72W. N OF 29N W WINDS 20 KT. SEAS 8 TO 12 FT IN SUBSIDING NW SWELL. S OF 29N W OF FRONT NW TO N WINDS 15 TO 20 KT. SEAS 6 TO 9 FT IN N SWELL. E OF FRONT S WINDS 10 TO 15 KT. SEAS 5 TO 6 FT. SCATTERED SHOWERS AND TSTMS ALONG FRONT.

SYNOPSIS FOR THE GULF OF MEXICO
.SYNOPSIS...COLD FRONT MOVES OFF THE GULF COAST THIS AFTERNOON

AND WEAKENS OVER THE E GULF FRI. HIGH PRES SHIFTS E OF AREA FRI. A SECOND STRONGER COLD FRONT MOVES OFF TEXAS COAST FRI NIGHT AND EXTENDS FROM THE FLORIDA PANHANDLE TO TAMPICO MEXICO BY EARLY SAT AND E OF THE AREA BY SAT NIGHT. STRONG HIGH PRES BUILDS IN OVER TEXAS BEHIND FRONT WITH GALES EXPECTED SAT.

MIDDLE GULF BETWEEN 85W AND 90W
...GALE CONDITIONS EXPECTED SAT...
.THIS AFTERNOON AND TONIGHT...N OF 27N W WINDS 15 KT SHIFTING TO N TO NE 15 TO 20 KT THIS AFTERNOON. SEAS 3 TO 5 FT. S OF 27N NE WINDS 10 TO 15 KT. SEAS 2 TO 4 FT. WINDS BECOMING E TO SE 10 TO 15 KT ALL SECTIONS TONIGHT. SEAS 3 TO 5 FT.
.FRI AND FRI NIGHT...SE TO S WINDS 15 TO 20 KT. SEAS 3 TO 5 FT. N OF 27N WINDS BECOMING S TO SW 20 TO 25 KT. SEAS INCREASING 6 TO 8 FT FRI NIGHT. S OF 27N S WINDS 15 TO 20 KT. SEAS 4 TO 6 FT FRI NIGHT. SCATTERED SHOWERS AND TSTMS N OF 27N FRI NIGHT.
.SAT...S OF FRONT S TO SW WINDS 20 TO 25 KT. SEAS 5 TO 7 FT. N OF FRONT NW WINDS 30 TO 35 KT. SEAS BUILDING 9 TO 14 FT.
.SUN...NW TO N WINDS 20 TO 25 KT DECREASE TO 15 KT LATE. SEAS SUBSIDING 8 TO 11 FT.
.MON...NW TO N WINDS 10 KT. SEAS SUBSIDING TO 2 TO 4 FT N OF 27N AND 4 TO 7 FT S OF 27N.

E GULF BETWEEN 81W AND 85W

.THIS AFTERNOON...N OF 27N W TO NW WINDS 15 KT SHIFTING TO N 15 TO 20 KT. SEAS 3 TO 5 FT. S OF 27N NW TO N WINDS 10 TO 15 KT. SEAS 3 TO 4 FT.
.TONIGHT...N TO NE WINDS 10 TO 15 KT. SEAS 3 TO 5 FT.
.FRI AND FRI NIGHT...E TO SE WINDS 10 KT...BECOMING SE TO S AND INCREASING 20 KT N OF 25N FRI NIGHT. SEAS 3 TO 5 FT.
.SAT...S OF FRONT S TO SW WINDS 20 TO 25 KT AND GUSTY. SEAS 5 TO 7 FT. N OF FRONT NW TO N WINDS 25 TO 30 KT. SEAS BUILDING 8 TO 13 FT.
.SUN...NW TO N WINDS 20 TO 25 KT DECREASE TO 15 KT LATE. SEAS 7 TO 10 FT.
.MON...N OF 28N W WINDS 15 KT SHIFTING TO N 20 KT LATE. SEAS 3 TO 5 FT. S OF 28N NW TO N WINDS 10 KT. SEAS 2 TO 4 FT.

SYNOPSIS FOR CARIBBEAN SEA AND TROPICAL N ATLC FROM 7N TO 22N

BETWEEN 55W AND 65W
.SYNOPSIS...DIFFUSE COLD FRONT CENTRAL CUBA TO HONDURAS WILL MOVE E AND DISSIPATE FRI. CONTINENTAL HIGH PRES MOVING E THROUGH SAT. NEW COLD FRONT ENTERS YUCATAN CHANNEL LATE SAT AND MOVES TO WINDWARD PASSAGE TO NE NICARAGUA SUN NIGHT. FRONT MOVES SLOWLY SE TO CENTRAL CARIBBEAN LATE MON.

NW CARIBBEAN N OF 15N W OF 75W
.THIS AFTERNOON AND TONIGHT...NE WINDS 15 TO 20 KT. SEAS 6 TO 8 FT.
.FRI AND FRI NIGHT...NE WINDS 15 TO 20 KT BECOMING E FRI NIGHT. SEAS 5 TO 7 FT.
.SAT...S OF 18N...E WINDS 15 KT. SEAS 4 TO 6 FT. N OF 18N...SE WINDS 10 TO 15 KT. SEAS 3 TO 4 FT...EXCEPT WINDS BECOMING N AND INCREASING 20 TO 25 KT SEAS BUILDING 6 TO 8 FT BEHIND FRONT LATE. SCATTERED SHOWERS DEVELOPING ALONG FRONT.
.SUN AND MON...N OF FRONT N WINDS 25 TO 30 KT. SEAS BUILDING TO 8 TO 12 FT. S OF FRONT E WINDS 10 KT. SEAS 5 TO 8 FT IN N SWELL. SCATTERED SHOWERS AND A FEW TSTMS ALONG FRONT.

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5. <u>High Seas Forecasts</u>:

HSFEPI

CCODE/1:31:12:01:00/AOW+POR/NWS/CCODE
HIGH SEAS FORECAST FOR METAREA XII
NWS OPC WASHINGTON DC/TPC MIAMI FL
1745 UTC MAY 02 2003
SUPERSEDED BY NEXT ISSUANCE IN 6 HOURS

SECURITE

PACIFIC N OF 30N AND S OF 67N E OF A LINE FROM BERING STRAIT TO 50N 160E.

SYNOPSIS VALID 1200 UTC MAY 02.
24 HOUR FORECAST VALID 1200 UTC MAY 03.
48 HOUR FORECAST VALID 1200 UTC MAY 04.

.WARNINGS.
...STORM WARNING...
.LOW 41N 175E 1004 MB MOVING SE 20 KT. WINDS 40 TO 55 KT SEAS 17 TO 26 FT WITHIN 180 NM W AND 300 NM SW QUADRANTS. ELSEWHERE WINDS 25 TO 40 KT SEAS 10 TO 18 FT WITHIN 300 NM W AND 420 NM S AND SW QUADRANTS.
.24 HOUR FORECAST LOW 36N 175W 1007 MB. FORECAST WINDS 25 TO 40 KT SEAS 12 TO 20 FT WITHIN 420 NM SW SEMICIRCLE.
.48 HOUR FORECAST LOW 35N 171W 1010 MB. FORECAST WINDS 25 TO 35 KT SEAS 10 TO 18 FT WITHIN 300 NM W AND NW QUADRANTS.

...GALE WARNING...
.LOW 34N 131W 1000 MB MOVING E NE 15 KT. WINDS 25 TO 35 KT SEAS 10 TO 16 FT WITHIN 360 NM W AND NW QUADRANTS. ELSEWHERE WINDS 20 TO 30 KT SEAS 8 TO 13 FT WITHIN 540 NM OF CENTER OVER FORECAST WATERS.
.24 HOUR FORECAST LOW 37N 124W 1003 MB. FORECAST WINDS TO 25 KT SEAS 9 TO 14 FT WITHIN 480 NM S SEMICIRCLE OVER FORECAST WATERS.
.48 HOUR FORECAST LOW DISSIPATED INLAND.

...GALE WARNING...
.LOW 35N 161W 1009 MB MOVING N 10 KT. WINDS 25 TO 35 KT SEAS 9 TO 15 FT WITHIN 300 NM E SEMICIRCLE.
.24 HOUR FORECAST LOW 39N 160W 1009 MB. FORECAST WINDS 20 TO 30 KT SEAS 10 TO 15 FT WITHIN 300 NM E AND NE QUADRANTS.
.48 HOUR FORECAST LOW 40N 153W 1016 MB. FORECAST CONDITIONS DIMINISHED.

...GALE WARNING...
.AREA OF WINDS TO 25 KT SEAS TO 12 FT N OF 56N AND W OF 167E.
.24 HOUR FORECAST AREA OF WINDS 20 TO 30 KT SEAS TO 13 FT FROM 49N TO 54N W OF 175E.
.48 HOUR FORECAST LOW 57N 172W 993 MB. FORECAST WINDS 25 TO 35 KT SEAS 9 TO 14 FT WITHIN 360 NM S AND SW QUADRANTS.

.SYNOPSIS AND FORECAST.

.LOW 46N 176W 1000 MB MOVING N 15 KT. FRONT EXTENDS FROM 52N 174W TO 40N 165W. WINDS 20 TO 30 KT SEAS 9 TO 16 FT WITHIN 300 NM E AND NE OF FRONT...ALSO WITHIN 300 NM E SEMICIRCLE.
.24 HOUR FORECAST LOW 52N 175W 1005 MB. FORECAST WINDS 20 TO 30 KT SEAS TO 12 FT N OF 59N W OF 170W.
.48 HOUR FORECAST LOW ABSORBED BY FORECAST LOW 57N 172W.

.24 HOUR FORECAST AREA OF WINDS 20 TO 30 KT SEAS TO 12 FT FROM 46N TO 52N BETWEEN 137W AND 146W.

.48 HOUR FORECAST AREA OF WINDS TO 25 KT SEAS TO 12 FT FROM 38N TO 46N BETWEEN 125W AND 133W.

.48 HOUR FORECAST AREA OF WINDS 20 TO 30 KT SEAS TO 12 FT N OF 45N W OF 170E.

.48 HOUR FORECAST LOW 40N 158E 1005 MB. FORECAST WINDS 20 TO 30 KT SEAS TO 12 FT WITHIN 360 NM E SEMICIRCLE.

.HIGH 48N 150W 1034 MB MOVING S 10 KT.
.24 HOUR FORECAST HIGH 44N 150W 1025 MB.
.48 HOUR FORECAST HIGH DISSIPATED.

.HIGH 37N 159E 1028 MB MOVING E 10 KT.
.24 HOUR FORECAST HIGH 37N 166E 1028 MB.
.48 HOUR FORECAST HIGH 38N 176E 1027 MB.

.48 HOUR FORECAST HIGH 32N 140W 1025 MB.

.48 HOUR FORECAST HIGH 45N 180 1026 MB.

.FORECASTER SHAW. OCEAN FORECAST BRANCH.

E PACIFIC FROM THE EQUATOR TO 30N E OF 140W.

SYNOPSIS VALID 1200 UTC FRI MAY 02
24 HOUR FORECAST VALID 1200 UTC SAT MAY 03
48 HOUR FORECAST VALID 1200 UTC SUN MAY 04

WARNINGS
NONE.

SYNOPSIS AND FORECAST
SYNOPSIS...FRONT 30N125W TO 22N140W. NW OF FRONT N OF 27N WIND W TO NW 20 TO 25 KT SEAS 9 TO 13 FT...N OF 27N WITHIN 180 NM E OF FRONT WIND SW 20 KT SEAS 8 FT.
.24 HOUR FORECAST WEAKENING FRONT 30N122W 25N132W. N OF 28N W OF FRONT TO 128W WIND W TO NW 20 KT SEAS 8 TO 11 FT IN NW SWELL. ELSEWHERE N OF FRONT AND N OF 25N W OF 132W WIND LESS THAN 20 KT SEAS TO 9 FT IN N SWELL.
AT 0600 UTC MAY 04...FRONT DISSIPATED. NW OF LINE 30N120W 19N140W WIND LESS THAN 20 KT SEAS TO 9 FT IN N SWELL.
.48 HOUR FORECAST...N OF 25N W OF 130W WIND LESS THAN 20 KT SEAS TO 8 FT IN DECAYING N SWELL.

FROM 24N TO 27N E OF 115W TO COAST OF BAJA CALIFORNIA WIND NW 20

KT SEAS TO 8 FT.
.24 HOUR FORECAST WIND LESS THAN 20 KT SEAS LESS THAN 8 FT.
.48 HOUR FORECAST FROM 22N TO 26N E OF 115W INCLUDING GULF OF CALIFORNIA WIND NW 20 KT SEAS TO 8 FT.

FROM 10N TO 16N W OF 130W WIND NE TO 20 KT SEAS TO 8 FT.
.24 HOUR FORECAST LITTLE CHANGE.
.48 HOUR FORECAST FROM 9N TO 17N W OF 125W WIND NE 20 KT SEAS TO 9 FT. FROM 17N TO 25N W OF 130W WIND NE TO 20 KT SEAS TO 9 FT IN DECAYING N SWELL.

REMAINDER FORECAST AREA WIND LESS THAN 20 KT SEAS LESS THAN 8 FT.

CONVECTION VALID 1500 UTC FRI MAY 02...
INTERTROPICAL CONVERGENCE ZONE...5N77W 6N83W 6N93W 9N104W 6N127W 7N140W. SCATTERED MODERATE TO STRONG CONVECTION WITHIN 75 NM N OF THE AXIS FROM 82W TO 86W AND WITHIN 90 NM N OF THE AXIS FROM 105W TO 108W. SCATTERED MODERATE ISOLATED STRONG WITHIN 60 NM OF THE AXIS NEAR 97W WITHIN 60 NM OF AXIS NEAR 112W AND WITHIN 60 NM OF AXIS FROM 121W TO 125W. SCATTERED MODERATE WITHIN 75 NM S OF THE AXIS E OF 78W.
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FORECASTER HOLWEG
TROPICAL PREDICTION CENTER
TROPICAL ANALYSIS AND FORECAST BRANCH

FZPN40 PHFO 021645

HSFNP

HIGH SEAS FORECAST
NATIONAL WEATHER SERVICE HONOLULU HI
1700 UTC FRI MAY 02 2003
SUPERSEDED BY NEXT ISSUANCE IN 6 HOURS

SECURITE

NORTH PACIFIC EQUATOR TO 30N BETWEEN 140W AND 160E.
SYNOPSIS VALID 1200 UTC MAY 02 2003.
24 HR FORECAST VALID 1200 UTC MAY 03 2003.
48 HR FORECAST VALID 1200 UTC MAY 04 2003.

WARNINGS. NONE.

SIGNIFICANT FEATURES AND FORECAST

COLD FRONT THROUGH 30N 158W 20N 165W CONTINUING AS A SHEAR LINE THROUGH 18N 170W 13N 170W. FRONT MOVING EAST SLOWLY WITH SHEAR LINE NEARLY STATIONARY. WINDS 20 TO 25 KT SEAS AND 8 TO 12 FT BETWEEN 14N AND 21N W OF 177E. ISOLATED TSTMS WITHIN 60 NM OF SHEAR LINE BETWEEN 170E AND 180.
.24 HR FORECAST FRONT THROUGH 30N 154W 21N 170W CONTINUING AS A SHEAR LINE 12N 173W. WINDS 20 TO 25 BETWEEN 14N AND 20N W OF 175E.
.48 HR FORECAST STATIONARY FRONT THROUGH 30N 153W 26N 163W. WINDS WEAKENED 20 KT OR LESS.

HIGH 1023 MB NEAR 27N 165E STATIONARY AND DISSIPATING AFTER 12 HRS. RIDGE FROM HIGH THROUGH 28N 160E AND THROUGH 27N 180 23N 167W. RIDGES MOVING N 10 KT.

RIDGE THROUGH 30N 149W 23N 145W 21N 140W MOVING EAST SLOWLY.

RIDGE THROUGH 30N 151W 19N 160W MOVING EAST SLOWLY.

SEAS 8 FT OR LESS NW OF A LINE THRU 20N 160E TO 30N 170E...OTHERWISE SEAS 9 TO 11 FT IN AREA NW OF A LINE THRU 10N 160E 30N 160E. SEAS 9 TO 11 FT S OF 10N E OF 170E MAINLY DUE TO SOUTH SWELL. SEAS 8 FT OR LESS OVER REMAINDER OF AREA.
.24 HR FORECAST NW OF A LINE THRU 20N 160E 30N 170E...AND S OF A 10NW OF 175W SEAS 8 FT OR LESS. REMAINDER OF AREA SEAS SEAS 9 TO 11 FT.

.48 HR FORECAST SEAS 9 TO 11 FT IN AREA SOUTH OF A LINE THROUGH 20N 10N 178W 30N 160W.

ISOLATED MODERATE TSTMS WITHIN 30 NM OF A LINE 11N 172W 10N 180.

INTERTROPICAL CONVERGENCE ZONE...ISOLATED MODERATE TSTMS WITHIN 60 NM OF A LINE THROUGH 04N 180W 04N 160W.

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FZPN01 KWBC 311025
HSFEP1

HIGH SEAS FORECAST FOR METAREA XII
NWS OPC WASHINGTON DC/TPC MIAMI FL
1145 UTC MAR 31 2006
SUPERSEDED BY NEXT ISSUANCE IN 6 HOURS

SECURITE

PACIFIC N OF 30N AND S OF 67N E OF A LINE FROM BERING STRAIT
TO 50N 160E TO 30N 160E.

SYNOPSIS VALID 0600 UTC MAR 31.
24 HOUR FORECAST VALID 0600 UTC APR 01.
48 HOUR FORECAST VALID 0600 UTC APR 02.

.WARNINGS.

...STORM WARNING...
.LOW 58N 158W 986 MB MOVING SE 20 KT. FRONT FROM LOW CENTER
EXTENDS THROUGH 52N 153W TO 50N 153W SW THROUGH 40N 173E. WINDS
25 TO 40 KT SEAS 12 TO 22 FT WITHIN 240 NM E OF FRONT N OF
40N...AND ALSO FROM 40N TO 58N W OF FRONT TO 180.
.24 HOUR FORECAST LOW 54N 145W 991 MB WITH FRONT FROM LOW CENTER
NW THROUGH 59N 152W AND FROM LOW CENTER S THROUGH 46N 142W THEN
SW THROUGH 38N 163W. FORECAST WINDS 25 TO 40 KT SEAS 10 TO 18 FT
WITHIN 120 NM S AND E OF FRONT N OF 38N....AND FROM 38N TO 58N W
OF FRONT TO 165W.
.48 HOUR FORECAST LOW REFORMED 48N 137W 986 MB. FORECAST WINDS
35 TO 50 KT SEAS 15 TO 27 FT WITHIN 420 NM W QUADRANT. ALSO
FORECAST WINDS 30 TO 40 KT SEAS 10 TO 20 FT OVER FORECAST WATERS
FROM 34N TO 55N AND E OF 152W.

...GALE WARNING...
.LOW 62N 170W 975 MB NEARLY STATIONARY. OVER FORECAST WATERS...
WINDS 20 TO 30 KT SEAS TO 8 TO 13 FT WITHIN 300 NM OF CENTER
EXCEPT SE SEMICIRCLE.
.24 HOUR FORECAST LOW 63N 171W 984 MB. FORECAST WINDS 25 TO 35
KT SEAS 8 TO 15 FT N OF 52N TO 63N BETWEEN 165W AND 180.
.48 HOUR FORECAST LOW 65N 170W 995 MB. FORECAST WINDS TO 20 KT
SEAS TO 10 FT WITHIN N OF 55N AND W OF 165W.

.SYNOPSIS AND FORECAST.

.LOW 43N 131W 1003 MB MOVING NE 10 KT. WINDS 20 TO 30 KT SEAS 10
TO 18 FT WITHIN 540 NM W QUADRANT.
.24 HOUR FORECAST LOW 47N 1278W 1006 MB. FORECAST WINDS 20 TO 30
KT SEAS 10 TO 16 FT WITHIN 660 NM SW QUADRANT.
.48 HOUR FORECAST LOW INLAND WITH CONDITIONS DIMINISHED.

.AREA OF PATCHY DENSE FOG OCCASIONALLY REDUCING VSBY TO 1 NM OR
LESS WITHIN 240 NM SE AND S OF A LINE FROM 56N 157W TO 50N 155W
TO 43N 173W.
.24 HOUR FORECAST CONDITIONS IMPROVE.

.48 HOUR FORECAST AREA OF PATCHY DENSE FOG OCCASIONALLY REDUCING
VSBY TO 1 NM OR LESS FROM 39N TO 49N BETWEEN 170W AND 170E.

.HIGH 43N 176E 1018 MB MOVING E NE 20 KT.
.24 HOUR FORECAST HIGH 43N 167W 1022 MB.
.48 HOUR FORECAST HIGH 41N 157W WITH RIDGES N NW THROUGH 58N
160W AND SE THROUGH 30N 147W.

.FORECASTER CHESNEAU. OCEAN FORECAST BRANCH.

E PACIFIC FROM THE EQUATOR TO 30N E OF 140W.

SYNOPSIS VALID 0600 UTC FRI MAR 31
24 HOUR FORECAST VALID 0600 UTC SAT APR 01
48 HOUR FORECAST VALID 0600 UTC SUN APR 02

.WARNINGS
NONE.

.SYNOPSIS AND FORECAST
.COLD FRONT 30N131W 26N140W. W OF FRONT N TO NE WINDS 20 KT SEAS
TO 8 FT.
.24 HOUR FORECAST COLD FRONT 30N123W 25N132W 22N138W. W OF FRONT
N TO NE WINDS 20 KT SEAS 8 TO 10 FT IN NW SWELL.
.48 HOUR FORECAST FRONT DISSIPATED. N OF 25N W OF 125W WIND LESS
THAN 20 KT SEAS TO 9 FT IN NW SWELL.

.FROM 9N TO 12N BETWEEN 85W AND 89 INCLUDING GULF OF PAPAGAYO
NE WINDS 20 KT SEAS TO 8 FT.
.24 HOUR FORECAST LITTLE CHANGE.
.48 HOUR FORECAST LITTLE CHANGE.

.REMAINDER OF AREA WINDS LESS THAN 20 KT SEAS LESS THAN 8 FT.

CONVECTION VALID 0900 UTC FRI MAR 31...

INTERTROPICAL CONVERGENCE ZONE...8N78W 4N95W 4N129W 2N140W.
SCATTERED MODERATE TO STRONG WITHIN 90 NM EITHER SIDE OF AXIS
FROM 81W TO 84W.

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FORECASTER DGS
TROPICAL PREDICTION CENTER
TROPICAL ANALYSIS AND FORECAST BRANCH